

SEQUENCE LISTING

<110> WEI, Ming-Hui et al

<120> ISOLATED HUMAN PHOSPHATASE PROTEINS,
 NUCLEIC ACID MOLECULES ENCODING HUMAN PHOSPHATASE PROTEINS,
 AND USES THEREOF

<130> CL001066-CIP

<150> 09/752,820

<151> 2001-01-03

<160> 7

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1435

<212> DNA

<213> Human

<400> 1

```

tcgcgccttt caccggcacc ttgcgtcggt cgcgccgcgg ggcttgcctc tgccgcgcgc 60
acccccgggg ctteggctcc ggacagggtc gcgccagct ttctgcacc tgaggccgcc 120
ggccagccgc cgccatgggt gcctacctct cccagcccaa cacggtgaag tgctccgggg 180
acggggtcgg cgcgccgcgc ctgcgcgtgc cctacggctt ctccgccatg caaggctggc 240
gcgtctccat ggaggatgct cacaactgta ttctgagct ggacagtgag acagccatgt 300
tttctgtcta cgatggacat ggaggggagg aagttgcctt gtactgtgcc aaatatcttc 360
ctgatatcat caaagatcag aaggcctaca aggaaggcaa gctacagaag gctttagaag 420
atgccttctt ggctattgac gccaaattga ccactgaaga agtcattaaa gagctggcac 480
agattgcagg gcgaccact gaggatgaag atgaaaaaga aaaagtagct gatgaagatg 540
atggggacca cttctataag agaaacaaga acctgccacc tgaggaacag atgatttcag 600
cccttccctga catcaagggt ctgactctca ctgacgacca tgaattcatg gtcattgcct 660
gtgatggcat ctggaatgtg atgagcagcc aggaagtgtg agatttcatt caatcaaaga 720
tcagccagcg tgatgaaaat ggggagcttc ggttattgtc atccattgtg gaagagctgc 780
tggatcagtg cctggcacca gacacttctg gggatggtac aggtgtgtac aacatgacct 840
gcatcatcat ttgcttcaag ccccgaaaca cagcagagct ccagccagag agtggcaagc 900
gaaaactaga ggaggtgctc tctactgagg gggctgaaga aaatggcaac agcgacaaga 960
agaagaaggc caagcgagac tagcagtcac ccagaccctt gccacctag actgttttct 1020
gagccctccg gacctgagac tgagttttgt ctttttcctt tagccttagc agtgggtatg 1080
agggtgtcag ggggagctgg gtggcttcac tccgccatt ccaaagaggg ctctccctcc 1140
acactgcagc cgggagcctc tgctgtcctt cccagccgcc tctgtcctc gggctcatca 1200
ccggttctgt gcctgtgctc tgttgtgttg gaggaagga ctggcggttc tgggttttac 1260
tctgtgaact ttatttaagg acattctttt ttattggcgg ctccatggcc ctcgcccgct 1320
tgcaccgcgt ctctgttgta cactttcaat caacactttt tcagactaaa ggccaaaacc 1380
taatcgtaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1435

```

<210> 2

<211> 282

<212> PRT

<213> Human

<400> 2

Met Gly Ala Tyr Leu Ser Gln Pro Asn Thr Val Lys Cys Ser Gly Asp

1 5 10 15
 Gly Val Gly Ala Pro Arg Leu Pro Leu Pro Tyr Gly Phe Ser Ala Met
 20 25 30
 Gln Gly Trp Arg Val Ser Met Glu Asp Ala His Asn Cys Ile Pro Glu
 35 40 45
 Leu Asp Ser Glu Thr Ala Met Phe Ser Val Tyr Asp Gly His Gly Gly
 50 55 60
 Glu Glu Val Ala Leu Tyr Cys Ala Lys Tyr Leu Pro Asp Ile Ile Lys
 65 70 75 80
 Asp Gln Lys Ala Tyr Lys Glu Gly Lys Leu Gln Lys Ala Leu Glu Asp
 85 90 95
 Ala Phe Leu Ala Ile Asp Ala Lys Leu Thr Thr Glu Glu Val Ile Lys
 100 105 110
 Glu Leu Ala Gln Ile Ala Gly Arg Pro Thr Glu Asp Glu Asp Glu Lys
 115 120 125
 Glu Lys Val Ala Asp Glu Asp Asp Gly Asp His Phe Tyr Lys Arg Asn
 130 135 140
 Lys Asn Leu Pro Pro Glu Glu Gln Met Ile Ser Ala Leu Pro Asp Ile
 145 150 155 160
 Lys Val Leu Thr Leu Thr Asp Asp His Glu Phe Met Val Ile Ala Cys
 165 170 175
 Asp Gly Ile Trp Asn Val Met Ser Ser Gln Glu Val Val Asp Phe Ile
 180 185 190
 Gln Ser Lys Ile Ser Gln Arg Asp Glu Asn Gly Glu Leu Arg Leu Leu
 195 200 205
 Ser Ser Ile Val Glu Glu Leu Leu Asp Gln Cys Leu Ala Pro Asp Thr
 210 215 220
 Ser Gly Asp Gly Thr Gly Cys Asp Asn Met Thr Cys Ile Ile Ile Cys
 225 230 235 240
 Phe Lys Pro Arg Asn Thr Ala Glu Leu Gln Pro Glu Ser Gly Lys Arg
 245 250 255
 Lys Leu Glu Glu Val Leu Ser Thr Glu Gly Ala Glu Glu Asn Gly Asn
 260 265 270
 Ser Asp Lys Lys Lys Ala Lys Arg Asp
 275 280

<210> 3
 <211> 29695
 <212> DNA
 <213> Human

<220>
 <221> misc_feature
 <222> (1)...(29695)
 <223> n = A,T,C or G

<400> 3
 aaagaatctt tttttttttt ttgagacgga gttgctctgt caccaggggt ggagtgcagt 60
 ggcgccatct tggttcaactg caacctccgc ctctgggggt caagctattc gcctgcctta 120
 gcctcccaag tagctgggat tacaggagcg caccactacg cctggctaata tttgtattt 180
 ttagtagaga cgggtttcac atgttgGCCa ggctgggtctc gaacttctgg cctcaagtga 240
 tccaccaccc ccccttgGCC tcccaaagtG ctgggattac aagtgtgagc cactgtgccc 300
 ggctgaaaag aatcaatttt gtcatagttt ggagaatttc tccttttctc tccatccctt 360
 gaatgcaatt tattaccaaa tctgtcttat ttgttattgt ctaatttgtc ctttcatctg 420
 gattcccatt gccaccctgc gtggtaccac cttactccca gctcttctca tctcctgctt 480
 agagtaagag ctctctaact agtagcagtg cccagggcca ggcgcggtgg ctcacgcctg 540

001330:0210

taatcccagc	actttgggag	gctgaggcgg	gtagatcacg	aggtcaggag	ttcgagacca	600
gcctggccaa	catggtgaaa	ccccgtctct	actaaaaata	caaaaattag	ccaggcgtgg	660
aatcctagct	actcgggagg	ctgaggcagg	agaatcgctt	gaacctggga	ggcggagggtt	720
gcagttagcc	aagatagcgc	cactgcactg	cagcctgggc	aacaagagcg	aaactctgtc	780
ttaaaaaaaaa	aacaatagta	ggcgggggtg	ggtggctcac	gcctgtaatc	ccaacacttt	840
gggaggccga	ggcggggcga	tcacgagggtc	aggagatgga	gaccatcctg	gctaacacgg	900
tgaaacctcg	tctctactaa	aaatacaaaa	aattagccag	gcgtggtggc	gggcgcctgt	960
agtcccagct	actcgggagg	ctgaggcagg	agaatggcgt	gaacccgga	ggcggagctt	1020
gtagcctggg	cgacagagcg	agactctgtc	tcaaaaacaa	acaaaaaaca	acaacacaac	1080
agtgccccag	actctctccc	tccaatgtac	actgcataca	aagactagac	aaacgatgcc	1140
aaaggttaca	ccaggacgac	aatgaagtcc	aagtcactca	tcttggcgct	tctttttatc	1200
aagctagcta	gttaatatta	ccacttacaa	tcattctccg	agtccagcca	gcttccctcag	1260
aaatcctccc	caaatgcagt	tcacattctt	ccctcactcc	tccaaacctt	ataacattat	1320
tcccttttcc	tgtggcataa	tgcaatccag	aggcatcctc	tctgagagcc	tacatccttt	1380
caatcctcca	agaaacagct	cctcctccca	tccttgaget	tttcccaccc	agaataggct	1440
gtaccaaaaca	tttctacatt	gtattaactc	gaattatata	acagatcgag	gtcttcgctt	1500
tcagaaaaga	ctcacattct	tctcatatag	gcctgcgatg	gcctggccaa	gtacttccta	1560
agctcggaac	aaatactggg	caactttaat	tgaaccaa	cgggcggggt	ttgcggagtc	1620
tgagagtga	acgttgggga	gaggggggatg	aaaacactgg	aggacgggct	gaaagcgctg	1680
agtcggacac	aaaagaggcg	tcagacaaaa	cgccaagagg	ctggggaactg	ggaacgaagg	1740
aagaggttct	gccagaggcg	acctgccacc	tgcgcgagga	agcggagtag	gacggcgggc	1800
gttgggtggg	gtggtcgcg	tagtctcgcg	ggagcggccg	ttgggcgggc	cgttgtcccc	1860
tgcgggcggg	gcgagttgct	aaggaaatga	ctgcccgcag	cgectggccc	cgccgcgcag	1920
gccgggcggg	gtctggagcg	gcgcggttct	cgcttcgct	ccctcacagc	tcccgctccg	1980
ttaccgcctc	ctggccggcc	tgcgccttct	caccggcacc	ttgcgtcggt	cgccgcgcgg	2040
ggcctgctcc	tgccgcgcgc	acccccgggg	cttcggctcc	ggcacgggtc	gcgcccagct	2100
ttcctgcacc	tgagccgccc	gccagccgcc	gccatgggtg	cctacctctc	ccagcccaac	2160
acggtgaagt	gctccgggga	cggggtcggc	gccccgcgcc	tgccgctgcc	ctacggcttc	2220
tccgccatgc	aaggctggcg	cgtctccatg	gaggtgagga	ggcaggggcc	cataggctgg	2280
ccgctgcggg	gcgggaatct	gacggagaaa	gagagcgggg	gatggggtcc	tcccctggga	2340
agggteccaa	ttgggagcct	gcggccgcag	cgccggtttg	cggggcgaca	gagaccgcgg	2400
ggtcagggcc	gagagggagc	tcccgatgct	tggggaccgt	gtgccgttg	ccagtggcgg	2460
cgagggctcg	gccatgtggg	aagaggcacc	ttccgcccac	tgaccgccct	ctccccgagc	2520
tttggcgcca	tctctcgtg	ccaacctagc	cctccaggct	catcaacggt	gtgaggttta	2580
gtgtgggagt	aaagacgcaa	ataggggcta	tttattcatt	tgtttttcaa	gggagaggtg	2640
aatagatgtg	aataactttt	taaattttta	tattttaa	atctgatgtg	ggaagcctct	2700
tttggctagg	agtttgacag	tgaaaggaac	cccgggcaga	gtctgtttca	cattttgggt	2760
gcctggcctt	gggctcttgc	atgttaattt	cagaggctgg	acccgacctc	caggagtgtg	2820
cactcatttg	cactcttttc	agggcctttt	actaacttcg	gaaaacttga	attatgtcag	2880
tccctaggtt	ttccttttta	ttatgcttcg	ttttctttct	ctcttaggat	ttctctaaaa	2940
cttaatcagt	aattctcatt	tgctgtaat	tgtagtttat	agtttctttg	attgtaagtc	3000
atttcatcaa	tttttttcat	cacaacctac	ctacaaaggg	cttttctaga	aaattttact	3060
ctggacaaaa	ggggaagaga	aaaatattgg	ggggaagta	gtagtattag	gtaaaacttg	3120
atgtgaaact	acaaaagaga	agaggggaaa	ctgcggtagg	gaggaaaggg	aggaagacgg	3180
gttaaccgtg	gctttgtgaa	gagcattctg	aagtctaggc	aaaagggcca	gggaaatact	3240
ctgtctggta	ttgagggttt	ctccacctac	cggttggtgt	tcaggtaaca	gcgaaatact	3300
gtctcccttg	ggaattgttt	cagatccctc	gctcctcctg	tggttagctc	tggaatgcca	3360
gtatgaactt	caatgttttg	ttttccgatt	caaattttat	attcataact	gaccttaata	3420
acaattttac	aattaggtat	aaaattttcag	gacctaagtg	tatcctatag	ttcatctcat	3480
ctgctttggc	tccctttttt	tttttttgag	acagaatttc	gctcttgttg	cccaggctgg	3540
aatgcaatgg	cgcgatctcg	gctcaccgca	acctccgcct	cccagggttg	agcaattctc	3600
ctgcctcagc	ctccatagta	gttgggatca	caggcatgtg	ccaccacgcg	tggtctatct	3660
tgatattttta	gtagagacag	ggtttcttca	tgtgggtcag	gctggtgttg	aactcctgac	3720
ttagggtgatc	tgccctgcctc	ggtctcccaa	agtgtaccac	ccacnnnnnn	nnnnnnnnnn	3780
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	3840
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	3900
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	3960

nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4020
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4080
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4140
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4200
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4260
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4320
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4380
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4440
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4500
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4560
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4620
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4680
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4740
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4800
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4860
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4920
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	4980
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5040
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5100
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5160
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5220
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5280
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5340
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5400
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5460
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5520
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5580
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5640
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5700
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5760
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5820
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5880
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	5940
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	6000
nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	nnnnnnnnnnnn	6060
nnnnnnnnnnnn	nnnnnnntggga	ttacagacat	gagccactgc	gcccagcctt	atttagaaat	6120
ttcttttagtg	aaagatgata	aattttcagt	ttttcattat	ctgaacatgt	ttttatctag	6180
cctttgttct	gaaaagatgc	ttggactcag	taccagttc	tagattgaca	gttaattttt	6240
cttaattttgt	aatgtttgtt	tcattgattg	acttccattg	ttgttcggaa	aaatttatca	6300
tcagccattt	ctgacttttg	atctgtgttt	tctcttttgt	ttctcttttt	ttttttcttt	6360
tttttttttt	gagacggagt	gtcgctctgt	tgcccaggct	ggagtgcagt	ggcatgatct	6420
tggtcactg	caacctctgc	ctcctgagtt	caagcgattc	tcctgcctca	gcttcccag	6480
tagctgggat	tacaggcgcc	tgccaccatg	ccgggcta	ttttgtatt	ttcaatagag	6540
acagggtttc	actatgttgg	ccgggttgg	ctccaactcc	tgacctctta	atccgcccgc	6600
ctcggcctcc	caaagtgtctg	gcattacagg	cgtgagccac	catgcctggc	ccatcagttg	6660
atgtagtctt	aaggggacaa	gagtacattt	aatatttgg	tgtgaggttc	tctggaagtg	6720
acaaaactgc	tttctatgga	gagttaggaa	tttttttttt	ttttgaaacg	gagtcctcgca	6780
ttgtcaccgc	ggctggagt	tagtggttg	atctcggctc	actgaaactt	ccgcctcttg	6840
ggttcaagt	attctcctgc	ctcagccttc	caaatagctg	ggattacagg	agtctgccac	6900
caggccagct	aatttttttt	tgtattttta	gtggagacag	gatttcacta	tgttgccag	6960
gctggtctca	gaactcctga	cgttgtgatc	cacttgcctc	ggcctcccaa	agtgtggga	7020
ttacagatgt	gagctaccgt	gcccggccag	gaattttttg	tgctataaat	catattttcc	7080
ttttattaaa	ggcagtgctca	atatctatag	tataattttg	aggaggctgg	ctatttattg	7140
ctgtgtagaa	gctggcttat	tagtggtcaa	ggggtcatct	agaattgact	ataaagatag	7200
tattgagcag	aaaattctta	aaatacctgc	atattagttt	cagtcattaa	attaatggaa	7260
aaaatataaa	aagaaatatc	acaagtatgc	tatggggttc	tacctagg	cattgaaggt	7320
tgaaaaacat	ttattttctt	atcttcagat	tagcatctca	tatcaatagc	caatagctta	7380

```

aagcgctttt tacttactaa accaggtcag aatttctctc tctctctctt tttttttttt 7440
agacagagtc tctgtcacc cagctagagt gcagtggtgt gatctcggct cactggcctt 7500
tctgtttaag tgattctccg gcctcagcct cctgagtagc tgggattaca ggcatgtgcc 7560
acgacacttg gcttattttt tgtattttta gtagagatgg ggtttctctg tgttggtcag 7620
gcaggtcttg aactcctgac ctgaggtgat ctgcccgcct ccgcctccca aagtgcctgg 7680
attacagacg tgagctactg cgcctggcca gaatttcttt gtctagaatg tggttagcaa 7740
cttttataaa aacgcattat ttgcatttga ttagcatgca gtacccattc acagttcaaa 7800
gctagtatag aattatatca catgtatgcc catgagcatg gagaaactat tttcttttta 7860
tttttttaag ttggagtttt gctcttggtg cccaggctgg agtgcaatgg tgccatctcg 7920
gctcactgca gcttctgcct cctgggttct agcaatttgc ctaccccagc ctcccaagta 7980
gctgggatta caggcactcg ccaccatgcc cagctaactt ttttgtattt ttagtagaga 8040
aggggttttc ccatgctggc gagtctggtc ttgaacttct ggcccaagt gatctgcccg 8100
cctcagcctc ccaaagtgtc ggaattacag gcatgagcca ctgtgcccg cctttttatt 8160
ttttaaatga tttatgtatt tattttgaga caggatctca ctcttgccca tgcttgagt 8220
gtaaggagta tgggatttct tgtgccggtt ccttcacatc ctactacac ttatctgcct 8280
ttacagtggc tcgatcatag ttcactgcat agccttctgg gctcaagggg tcttccagcc 8340
tcagcctaata taggcacat gccaccatga ctggctaatt tttttttttt aagttttttt 8400
ttgtagagat agggccttgc agtgttgccc aggtgagga attttattta tgtttatttt 8460
atttttttat agttttttt atttttttat ttattttatt attgagatgg agtcttacac 8520
tgtcaccag gctggagtgc agttgcgcgg tctcagctac tgcaagctcc gcctcccggt 8580
ttcatgccat tctcctgcct cagcctcccg cgtagctgga ctacaggcgc ccgccaccac 8640
gcctggctaa ttttttgtgt gtgttttttag tagaggcggg gtttcaccat gttagccagg 8700
atggtctcga ttctgacct cgtgatccac ccacatcggc ctcccaaagt gctgggatta 8760
caggtgtgag ccaccatgcc tggcttagaa attattttat attttatacc attgccttat 8820
aagttctcaa gcaactggaa aatacaatca gaacgtattc ctcaagattt caaggatatt 8880
ttacacaaaag ttctattgtc tgattcctta gcagttgtta ctactgtttc cctaacctct 8940
aatcttctat tgggttatta gtcttagaat tgaattttga gaggtaaggg cttgaatttg 9000
aacatagaaa tttatacagg tctgatcagt agttcttgac attgtattat ctggaaacaa 9060
atcttttaga ctgagcttaa gatgtttaat gacattttgt agacagagta tgatttcagt 9120
gtagttgttt ttgtttcttt ctagatctag ttcagagatg aagtatatca actttttttt 9180
cctttttgac ccaatgctag cagaaaaaca acacctttta atcatattta gtatttgaaa 9240
atgtgtatac aggttccttt ttattttatt tatttcttac aggttccttt ttaatcagct 9300
ttattgagat agagttcata tactgtatgg ttcataccac atatggttca tataccatac 9360
agtatatgaa ctacttttaa gagtataatt cagtgggttt aagggtataa ttcattcatt 9420
ttaagggtat aattcagtgg ctttttagtat attttctttt ttttcttctt tttttctttt 9480
ttcgagacag ggtcttgctc tgttaccag gctggagtgc agtgacgcag cctcagctca 9540
ctgcaacctc cacctcccag gttcaagcga attctcttgc ctgagcatcc tgagtagctg 9600
gaactacagg ctacgcacc caccaccagc taatttttat attttcagta gaaacagggt 9660
ttaccatgt tgcccaggct ggtctcgaac tctggcctc aagtgatctg cctgcctcag 9720
cctcccaaag tgctgggatt acaggcatga gccaccgtgc ctgcctgttt tgtagtgtat 9780
tcaaacagag ttgtacaact gtcaccacaa tcagttttag aacccccaaa agaaaccctg 9840
tactctttac cagtcactcc ctatcttccg tccataacc cctggcatcc actaatttac 9900
atgacctcta tgaatttgcc tattctgaac attttataaa tgggaattcta aatacactac 9960
cttttatatac tggatgcttt tactaagcat gtgtattttt gaaattgact ttaaagcttg 10020
ttggccctg gaagagtaaa ttactctcca cccaagtat tccctctacc cctcagcttt 10080
gcctgtaagt ttctttttta aaaaatcaca catacattgt tgtagtagat ttaagaataa 10140
gtattttgct gaccocagg tcttttgctt ctttctagat cagtgccttg caggttttat 10200
tttacagagc ttaatagaat cagaaatctc tttaaaactc cagtctcata tccagttatc 10260
actcaccatc tctgtgtttg cagcaatagc caggcctggc ccagagggac ttgatctcca 10320
cttttggttt ttagactttt ctgtggcttt taccacctgc tgtgtatcct tgacctcata 10380
ctgctggact cctttggatg gataccagca ggatggttca ggctccagtg ggcacttttt 10440
aaaattctct ccttctgttc agatagacag agctcaggca gatcaccaag tctgttgctt 10500
gtgtaaccag gaaagagatg ctagttttct tttaggcact cccatttggt tctgttgtaa 10560
ccttctcac ttagttgatg gaagggaagc aaaagacca gaactccatc tcaaattaat 10620
gacttaacaa ttcttgaatt ttctcttata tcttagttaa ctctttttct tatctccagg 10680
aggtcagttt taattattgt tgtttattca tttattttca tggagacagg gtcttactgt 10740
gttgtccagg ctggccttga acccctggcc tcaaggaatc ttttcacctc agcctcccaa 10800

```

```

agtgcctggaa ttacagggcat gagtcaccac acccagcctg atatTTTTtca gttgatgtat 10860
catagtgtgtg cctaagcata atTTTTttaa tTTaattttt tatttttggg gacaggggtct 10920
ccctctgtcg cccaggtgtg agtgcagtga tgcgatctca gctcactgca acctccacct 10980
tctgggttaa agcgattctc ctgcctcagc ctcccagta gctgggacta caggtagcca 11040
ccatcacacc cggctaaatt ttttgtgtgt attttagtag agacgagatt tcgctgtgtt 11100
gcccagggcg gtctcgaact cctgagctca ggcaatccgc ctgcctcggc ctcccaaagt 11160
gctgggatta caggcatgaa ccaccacgcc cggccaagcg taatattttt aagggtcatc 11220
aatgttgtgt catgaatcaa tcagtgtttc gttctTTTTt atggttgaat aatattccat 11280
ggtatggatt tgtcacattt tgtttatcca ttcattagtt gatagacatt ttggatttcc 11340
actTTTTttt tTTTTttt gctattataa atagtgtac tatgtacaaa ttttgtgtg 11400
gaaatatgtc ctcatatctc ttggttatat accaaagagt ggaagtgtc ggcatatgg 11460
taactacgtg tttaacattt tgagaaactg ctaaactgtt ttccaaagt gctgtaccgt 11520
cgtacattcc tgccagcaat atatgaggat gccagttcct tcacatgtt actacactta 11580
tccacctttt ttataataac taatggtggg tgtgagatgg tatctcatt tagttttgat 11640
ttgtatttct ctgatggcta aatggcta atggtttgaa ctttttgtt gagacagaat 11700
ctcactctgt ccagattcaa gcgattctcc tgctcagcc tccctagcag ctgggattac 11760
aggcacatgc caccacacc agctaatttt ttgtatttct agtagagaca gggcattacc 11820
atgttgttca ggctgtgtc gaactcctga cctcaaagga tccgcctccc tgggcctccc 11880
aaagtgcctg attacaggct agagccacca tgccaggcct tatgtttgaa catcttttat 11940
gtgcttattg gacatttgtg tatcttctt ggagaaatgt ctgttcaaag tctttgtcca 12000
tttttaattg gattgtctt ttgtctttt atgtgtaaga gttctttatg tgttttggat 12060
acaagtttgt tagatatatg atttgcaa attttctcca atttttgtg acttttgtt 12120
tctttttttg ttttgtttt gttgttgtt ttgttgtgtg tgttttggc gggggacagt 12180
cttgcctga ccaccaggc tggaatggag tggcgcgatc ttggttcact gcaacctctg 12240
cctcctgagt tcaagctatc ctgcttcagc ctcccagta gctgggacct aggtgtgtgc 12300
caccactccc agctaatttt ttatttttag tagagaccgg gtttcacat gttggccagg 12360
ctggtcttga actactgacc tcaggtgatc tgctgcctc agcctcccaa agtgcctgga 12420
ttacagtcac gagccactac accctgattc tttttgtgtg ctttctttct tttttttct 12480
ttttttttt gagacggagt ctgcctctgt tgccaggctg gagtgcagtg gcatgatctc 12540
ggtcactgc aacctctgcc tcccgggtt aagccattct cctgcctcag cctcccaggt 12600
agctaggact ataggcacat gccaccatgc gcagctaatt tttgtattt tagtagagac 12660
ggggtttcac catgttgcc aggatagtct cgatctctt accctcgtgat ccgtccgcct 12720
gggcctccca aagtgcctag attacagacg tgagccacca cactcagcct ctttttgtt 12780
tcttgatggt gtcttttgaa acaaaagttt ttacttttga taaagtccaa tttgtctatt 12840
ttgtttgtt gttttgtt aagaagcttg cctaacccaa agtcacgaga attttctct 12900
aggttttct ctaagagttt tatagtttta gctgtttctg tgatccattt tgagtgaatt 12960
tttgtgaatg gtatgagga gtgatccaac ttcattctt tgtgtgtgga tatcaagttg 13020
tccagcact atttgttta accactgtt ttttcccca ttgaattatc ttggcatcat 13080
tgtcagagat aaattgaccg taaatgtgag ggttttatt ctgaactctc aagtccattt 13140
cattggtcta catgtcccta tgccagtaat acactatctt ggttactgta gcttttagt 13200
acgttttgaa atgttttta aatttgtttt tcatctaaat tttaggatta atttgtcaat 13260
ttctgcacaa aaggcacctg ggtttctata ggggttatgc agaactctga gatcaactgg 13320
gggagtatta caggcatgag ccaccgtgcc tggctgactg agtttttcat agatgtactc 13380
tatcagggtt aggaagttcc cttttattcc taggttgtt agtctattt atattacttt 13440
tttagagaca gtcttgtct gtccctcagg ctgtagcaca gtggtcaat catagctcac 13500
tgcagcctt aactcctagg ttcaagagat ccgcctgcct cagccttctt agtagctggg 13560
attacatgca tgcaccacca tactgggcta atttttttaa attttttata gagacagggt 13620
cttattacta tgttgcccag actggcattg agtctttt tcattaatga gcactgaatt 13680
ttgtcaagt cttttataat acctattgt atgatcatag ggttttgtt tttagtctat 13740
cgatacgcta tattgcatta agtgattttt ttgaatgtt aaccaacct gcatttttt 13800
gggtgataag tcttatttga tcaatgtgta ttatccttt atatggtgct ggatttagtt 13860
tgctactatt ttgttgagga tttttgtgtc tatattcata agagatattg gtctgtagtt 13920
tcttgtgatg tctttgtctg gttttagaat cagggtaatg ctggcctcat agaataatt 13980
gggaagtgtt gtcttttcta tgtgatggga gagtttgtga atcattggta ttaattttt 14040
tgtaaatgtt tggtagaatt cacaaataaa ggcactctgag cctgggctct tctttgtggg 14100
aagtttttgg cttttttttt ctttaaaaat tttcattgtg gctgggcatg gtggctcacg 14160
cctgtaatcc cagcactttg gggggccaag acgggtgaat cacctgaggn nnnnnnnnn 14220

```

61

tgcactccag	cctggcgaca	gagtgagact	ctttctcaga	aaaaaatatg	ataattaaaa	17700
gttgagacgt	tcttcgccga	gagtggtcgg	ggtttccctgc	ttcaacagtg	cttggacgga	17760
acccggcgct	cgctcctgcac	cccggccggc	cgcccatagc	cagccctccg	tcacctcttc	17820
accatgccct	cggactgccc	caaggccccc	gccgcagctc	cagcgcccg	tagccaccac	17880
tgccgctgcc	gccgcctctc	cttagtcgcc	ggcatgacga	ccgctctac	ctcgaggtg	17940
cgccagaact	accaccaaga	ctcagaggcc	gccatcaacc	gccagatcaa	cctggagctc	18000
tacgcctcct	ccatttacct	gtgctgtggc	tactactttg	acagcgatga	tgtggctttg	18060
aagaactttg	ccaaataactt	tcttcaccaa	tctcatgagg	agagggaaca	tgctgagaaa	18120
ttgatgaagc	tgtagaacca	acgaggtggc	cgaatcttcc	ttcaggatat	caagaaacca	18180
gactgtgcgg	ggagaatgcg	atgggagagc	gggctgaatg	cgatggatta	catttgga	18240
aaattgtgca	ttttgcatta	catttgga	aaaatgtgaa	tcagtcacta	ctggaactgc	18300
acaaactggc	cactgacaaa	aatgacccc	atttgtgtga	cttcattgag	acacattacc	18360
tgaatgaaca	agtgaaggcc	atcaaagaat	tgggtgacca	cgtagcaaac	atgcacgaga	18420
tgggagcgcc	cgaatctggc	gtggcagaat	acctcttga	caagcacacc	ctgggagaca	18480
gtgataatga	aagctaagcc	tcaggcta	ttccccatag	ccatagggtg	acttaccttg	18540
tcaccaaggc	agcgcatgta	tgttggggtt	tcctttacct	tttctataag	ttgttccaag	18600
acacccactt	aagttctttg	atltgtacca	ttccttcaaa	taaataaatt	tggtaccctc	18660
cccccccca	aaaaaaaaat	gtactgtggg	ctggcgtagt	ggctcatgcc	taaatctcag	18720
cactttggga	ggctgaggcg	ggaggatcac	ctgaggtcgg	gagtttgaga	ccagcctggg	18780
caacatggtg	aaaccccggtg	tctactaaaa	atataaaaac	tagccagtca	tggtggcaca	18840
cacctgtaat	ccgggtact	tgggaggctg	aggcatgaga	atcacttgaa	cctgggctgc	18900
ggaggttgta	gtaagctgag	atcatgccac	tgtactccag	cctgggtgac	aggagacat	18960
tctctctctc	aaaaaaaaaa	aaaaaaca	aaaaaaca	caaaccaaca	aaacaaagta	19020
atccaggaac	aacaacatga	tgaaggactg	catgcaggac	tcagtgatgg	atggtggaag	19080
acagccagga	agttaagcat	gactctggtg	ttaagtgttg	tctgggagag	ttaagattcc	19140
atttacagaa	ataagacctg	taggggaagc	tcttgatttt	tttttttttg	cagactgctg	19200
atttctgat	tacatgtgtt	aagtttgagg	tatagagaga	aagaacatcc	tggccgggtg	19260
cagtggctca	caccgtaat	cccagcactt	tgggaggcca	aggtgggcag	atcacgaggt	19320
ccaggagatc	gagaccatcc	tggccaacat	ggtgaaaccc	cgtctctact	aaaaatacaa	19380
aaattagctg	ggcgtggcg	cgcgtgcctg	ttatcccagc	tactcaggag	gctgaggcag	19440
gagaattgct	tgaacccgag	aggcagaggt	tgtgatgagc	cgagatcgcg	ccactgcact	19500
ccaccctggc	aacagagcta	gactctgtct	caaaaaaaaa	aaaaagaaag	aaaaaaagaa	19560
catcctgtag	aaacaggcag	tcagaggtat	agaactacac	agaatccaag	agatctttca	19620
agaaaagtga	catgcagcaa	gagaaactat	caagggggta	aacaacctat	agaatgggag	19680
aaaatattca	caaagtatac	atccaacaaa	agtctaata	ccaaaatcta	taaggaacct	19740
aacaagcaaa	aagcaataa	cccccttaa	aagtgggcaa	aggacatgaa	cagatacttc	19800
tcaaaagacg	tacatgtggc	ccacaaacat	gaaaaaacgc	ccatttctaa	tcatcagaca	19860
aatgcaaatt	agaaccacaa	agagatacca	tctcacacca	gtcagaacag	cttttgtaa	19920
aatgtcaaaa	aatgagaaac	gttgggtgag	ctgcagagga	aagcagacac	ttgtacactg	19980
ttggtgaagg	tgtaaattaa	tttagcgtag	gcacagtcag	tttgagatt	tctcagagaa	20040
ctaagagtgg	aactaccatt	agaccagca	atctgatggc	tggatatacg	gccaaaggaa	20100
aataaatcat	tctgcaaaa	gaacatatgt	acctgtatgt	tcattgtggc	accattcaca	20160
atagcaaaaa	cattgaaatca	actcatgtgc	ccatcagtgg	cggactagaa	aagaaaagaa	20220
aatatggtac	atagccatca	tgggaatacta	tgcacccatt	aaaaataatg	aaataatgtc	20280
tttgcaacaa	catgaatgta	gctggagggc	attatcctaa	gcaaaactaac	acagaaacag	20340
aaaaccaa	actgcgtgtt	ctcacgcagt	gagagtggga	gctgaacatc	aagtacacat	20400
ggatgtaaag	atggcaacaa	tagacatggg	tctactagag	gtgggtgggtg	ggcagggtgg	20460
gggtgggggt	tgtgtggcag	aggaacagct	gaaaaactac	ctatttgata	ctatacccg	20520
cacctgggaa	acgggttcag	tcatacccca	aacctcagca	tcacacagta	tacctttcta	20580
acaaacttac	acatgtattc	tgtgattcta	aaataaacat	tgaaaaataa	aaaaaaaaact	20640
gacatggttt	gtactgttta	atctgacata	atggctaggg	gaaatgaagt	ctgcagaatg	20700
gctgtttacg	gatgttgttg	ttgttgttga	gatgaggtct	cactatgttg	cccaggcttg	20760
aactcctggc	ctcaagcagt	cctcctgcct	tgacctcca	aaatgttgag	attacatgca	20820
tgagccattg	ccaaaacggc	tatttggtatt	gctgttaagg	ttattacatt	ctctgtgtag	20880
taagaccttg	aaggagaagg	atlttgagatc	aggagttaa	gaaaaaatgt	taatctagga	20940
agagaggata	atltctgtgt	ttggccagtt	gcaatggctc	acgectgtaa	tcccagcgtt	21000
ttgggaggcc	gagctgggca	gatcacttga	gctcaggagt	ttgagaagag	cctgggcaac	21060


```

atggtgaagc cccgtctcta ctgaaaatac aaaaattggc tgggcgtggt ggcaggtgcc 21120
cactgtaatt tcagccactc aggagactga ggcaggagaa ttgcttgaac ctggaaagtg 21180
gaggatatgg tgagcctaga tcgcgccact ctactccagc ctgggagact ccatctcaaa 21240
aaaaaaagaa aacaagatgc tgaaatgaag taattaccac agtcaatgtg atcctataac 21300
tttgttttct tttagagatg gggctctccct ctgtcaccga ggctggagtg cagtgggtgca 21360
tcatagcttt ctgcagcctc cacctcctgg gctcaggtgg tcctcttgcc tcagtgttcc 21420
gagtagttag gactgactgc aggtgcatgc tgctatgcct ggctaacttt aaaatttttt 21480
tgtagaggcg gggctcttgc atgttgccct ggctggctc caactcctga tctcaatcag 21540
tcctcctgcc taccttccca gagcgctggg attacaggtg tgagccatcg cacctagcca 21600
atctcataac attttatgac tagcaaactt agtagttctg attcaggcat aaatcagttg 21660
gtgggggttat acaagggttg gtgagttttt ctagatttct aagagaccat gttgaaatac 21720
ttggctctgt ctcagtaagg gatagagaga agcaaagggt tgggtaaagg ttatgagcag 21780
acatgtaaa ggggcaaat aaagtgttta ggggaaggta aacagttcca aatcataata 21840
tagatcccaa gcctcaccaa gaagtgaagg agagggtaat tgtgcgatag ttctcaggac 21900
tgagacctca aggtgtaaga cgaatcttta ttgtgggtgg tcctctttga gaaaaagaac 21960
aaaaaagaaa aatgtgaaat ggggtgctaaa tttcagagca gaataacat atatgtgtat 22020
gtgtgtgtgt atatatatat atattttttat gtagcaaatt ccagtttaca aagggctttt 22080
atgtgttttg catcattaca acagttctgt gatgatgtgg atgtgggtgga tattgtaatt 22140
ccacatccca gaggataaaa ttgaggcaca ccataaggta gctgaccaga gatcatgcag 22200
tatatggtag aatggcaact tgaggccagt tcttaggtgt gtttgtgtgc cttattcaga 22260
atggaacaat gtggtttatt gtacaaaaat ttaaaaatga atgtcgaaaa gtagaaatta 22320
ttacccaaat ctccacctct gtggttgttt gctatgtgat cttccagact cacatataca 22380
tgtagataat tttttttttt ttttttgaga cggagtcttg ctctgtcgcc ctggcnnnnn 22440
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22500
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22560
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22620
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22680
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22740
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22800
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22860
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22920
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 22980
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23040
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23100
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23160
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23220
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23280
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23340
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23400
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23460
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23520
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23580
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23640
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23700
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23760
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23820
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23880
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 23940
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24000
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24060
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24360
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24420
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 24480

```

64

```

atttattctg caaggggaat gagatggtaa gcctttgggg ttgaattatc taaaaacaag 27960
ggagaggggag tgtgctgctg tctctagaaa gatgaaatgt gtgcttctcc tgtttgttaa 28020
agctcttttg ggggtccag tgaaagcaag cataggtgaa cgatcaggag cacatcagtg 28080
aggaacgcat gttcagaagc ccccatgatg ctcttttct tctctttaag cctggctctg 28140
acagtggtag aacagcgggtg gtggccctga tacgagggaa gcagttgatt gtagccaacg 28200
caggagactc tcgctgtgtg gtatctgagg ctggcaaagc tttagacatg tcctatgatc 28260
acaaaccaga ggatgaagta gaactagcac gcatcaagaa tgctgggtggc aaggtcacca 28320
tggatgggag agtcaacggg ggcctcaacc tctccagagc cattggtaag ggccaagaaa 28380
ctgggaaaga nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 28440
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 28500
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 28560
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 28620
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 28680
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnatggtgaa 28740
accccatctc tactaaaaaa aaaaaaaaat acaaaaatta gctgggcatg gtagtgcaag 28800
cctgtaatcc cagctactca ggaggctgag gcaggagAAC cgcttgaatc cgggaggcgg 28860
aggttgtagt gagccgagat cgtgccatta cactccagcc tgggctacaa gagtgaact 28920
ccgtctcaaa aaaaaaaaaa caaaaaagac ttaaaataaa aagaccagtg agtgactttc 28980
ttaaggttca gcagtctggt ggcagggttg aaactagaaa aactaggact taggactcag 29040
ttccccattc cactagatta tggaactttg taaagaaggg aaatgaatgg caaggtttga 29100
cctgccacaa acacaagtct gtgggaagta tccaaactgc tcatcaacca ttctttact 29160
ccaggggacc acttctataa gagaacaag aacctgccac ctgaggaaca gatgatttca 29220
gccttctctg acatcaaggt gctgactctc actgacgacc atgaattcat ggtcattgcc 29280
tgtgatggca tctggtgagc actggcagaa tgccctaaat tccccttct gcagcatgtc 29340
ttctcttata ggactcaggg cacctctagg attagagcct aggcagacct aggcctcttg 29400
gtgggtgaag agcaccaga ctaaggcaga gctgagaatt tctgtagtta tttacactgg 29460
cctgggccac cacctctgtc catactctc tacgtgcct tagtgagact ggaagattct 29520
gactgttggt cttgacccca ggaatgtgat gagcagccag gaagttgtag atttcattca 29580
atcaaagatc agccagcgtg atgaaaatgg ggagcttcgg ttattgtcat ccattgtgga 29640
agaggtgagt accaggttg agaagagagg gtgtctggtc tgcacagcca gggtt 29695

```

<210> 4
 <211> 146
 <212> PRT
 <213> Human

<400> 4

Gly	Asp	His	Phe	Tyr	Lys	Arg	Asn	Lys	Asn	Leu	Pro	Pro	Glu	Glu	Gln
1				5				10					15		
Met	Ile	Ser	Ala	Leu	Pro	Asp	Ile	Lys	Val	Leu	Thr	Leu	Thr	Asp	Asp
			20					25				30			
His	Glu	Phe	Met	Val	Ile	Ala	Cys	Asp	Gly	Ile	Trp	Asn	Val	Met	Ser
		35					40					45			
Ser	Gln	Glu	Val	Val	Asp	Phe	Ile	Gln	Ser	Lys	Ile	Ser	Gln	Arg	Asp
		50				55					60				
Glu	Asn	Gly	Glu	Leu	Arg	Leu	Leu	Ser	Ser	Ile	Val	Glu	Glu	Leu	Leu
65					70				75					80	
Asp	Gln	Cys	Leu	Ala	Pro	Asp	Thr	Ser	Gly	Asp	Gly	Thr	Gly	Cys	Asp
			85					90						95	
Asn	Met	Thr	Cys	Ile	Ile	Ile	Cys	Phe	Lys	Pro	Arg	Asn	Thr	Ala	Glu
		100						105				110			
Leu	Gln	Pro	Glu	Ser	Gly	Lys	Arg	Lys	Leu	Glu	Glu	Val	Leu	Ser	Thr
		115				120						125			
Glu	Gly	Ala	Glu	Glu	Asn	Gly	Asn	Ser	Asp	Lys	Lys	Lys	Lys	Ala	Lys
	130					135					140				
Arg	Asp														
145															

<210> 5
 <211> 139
 <212> PRT
 <213> Human

<400> 5
 Met Gly Ala Tyr Leu Ser Gln Pro Asn Thr Val Lys Cys Ser Gly Asp
 1 5 10 15
 Gly Val Gly Ala Pro Arg Leu Pro Leu Pro Tyr Gly Phe Ser Ala Met
 20 25 30
 Gln Gly Trp Arg Val Ser Met Glu Asp Ala His Asn Cys Ile Pro Glu
 35 40 45
 Leu Asp Ser Glu Thr Ala Met Phe Ser Val Tyr Asp Gly His Gly Gly
 50 55 60
 Glu Glu Val Ala Leu Tyr Cys Ala Lys Tyr Leu Pro Asp Ile Ile Lys
 65 70 75 80
 Asp Gln Lys Ala Tyr Lys Glu Gly Lys Leu Gln Lys Ala Leu Glu Asp
 85 90 95
 Ala Phe Leu Ala Ile Asp Ala Lys Leu Thr Thr Glu Glu Val Ile Lys
 100 105 110
 Glu Leu Ala Gln Ile Ala Gly Arg Pro Thr Glu Asp Glu Asp Glu Lys
 115 120 125
 Glu Lys Val Ala Asp Glu Asp Asp Val Asp Asn
 130 135

<210> 6
 <211> 145
 <212> PRT
 <213> Mus musculus

<400> 6
 Gly Asp His Phe Tyr Lys Arg Asn Lys Asn Leu Pro Pro Gln Glu Gln
 1 5 10 15
 Met Ile Ser Ala Leu Pro Asp Ile Lys Val Leu Thr Leu Thr Asp Asp
 20 25 30
 His Glu Phe Met Val Ile Ala Cys Asp Gly Ile Trp Asn Val Met Ser
 35 40 45
 Ser Gln Glu Val Val Asp Phe Ile Gln Ser Lys Ile Ser Gln Arg Asp
 50 55 60
 Glu Asn Gly Glu Leu Arg Leu Leu Ser Ser Ile Val Glu Glu Leu Leu
 65 70 75 80
 Asp Gln Cys Leu Ala Pro Asp Thr Ser Gly Asp Gly Thr Gly Cys Asp
 85 90 95
 Asn Met Thr Cys Ile Ile Ile Cys Phe Lys Pro Arg Asn Thr Val Glu
 100 105 110
 Leu Gln Ala Glu Ser Gly Lys Arg Lys Leu Glu Glu Ala Leu Ser Thr
 115 120 125
 Glu Gly Ala Glu Asp Thr Gly Asn Ser Asp Lys Lys Lys Ala Lys Arg
 130 135 140
 Asp
 145

<210> 7

